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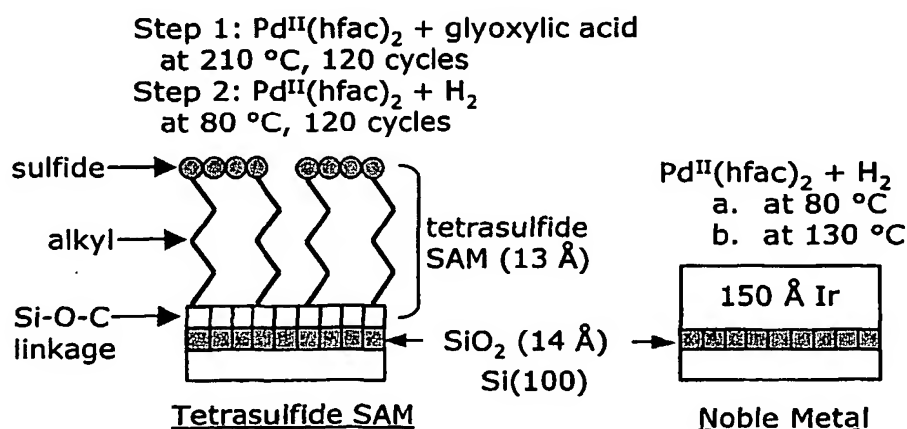
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(54) Title: **ATOMIC LAYER DEPOSITION OF NOBLE METALS**



(57) **Abstract**—The present invention relates to ALD processes for deposition of a metal selected from Pd, Rh, Ru, Pt and Ir wherein a layer including the metal is formed on a surface composed of a material selected from W, Ta, Cu, Ni, Co, Fe, Mn, Cr, V Nb, tungsten nitride, tantalum nitride, titanium nitride, dielectrics and activated dielectrics at a temperature ranging from >60°C to <260°C. The layer is formed by sequentially pulsing into a chamber containing said surface a precursor for the metal and a reducing gas selected from hydrogen, glyoxylic acid, oxalic acid, formaldehyde, 2-propanol, imidazole and plasma-activated hydrogen.